

# PATENT COOPERATION TREATY

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From the  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

10 Rec'd PCT/TTC 06 JUL 2004

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NOTIFICATION OF TRANSMITTAL OF  
INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT

(PCT Rule 71.1)

Date of Mailing  
(day/month/year) 18 MAR 2003

Applicant's or agent's file reference

14114.0332P2

IMPORTANT NOTIFICATION

International application No.

PCT/US02/10764

International filing date (day/month/year)

04 April 2002 (04.04.2002)

Priority date (day/month/year)

04 April 2001 (04.04.2001)

Applicant

THE GOVERNMENT OF THE UNITED STATES OF AMERICA

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.
4. REMINDER

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices)(Article 39(1))(see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

Name and mailing address of the IPEA/US  
Commissioner of Patents and Trademarks  
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Form PCT/IPEA/416 (July 1992)

Authorized officer

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OPS / WRD / ACS

By <u>ldt</u>	DOCKETED	03/25/03
Reviewed		
Name/Date		

inactive - other counsel

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10 Rec'd 13 MAR 06 2004

## PATENT COOPERATION TREATY

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REC'D 21 MAR 2003

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## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 14114.0332P2		<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/US02/10764	International filing date (day/month/year) 04 April 2002 (04.04.2002)	Priority date (day/month/year) 04 April 2001 (04.04.2001)	
International Patent Classification (IPC) or national classification and IPC IPC(7): C12Q 1/70; G01N 33/53; C12P 21/06; C07K 16/00; C07H 21/04; A61K 39/12 and US Cl.: 435/5, 7.1, 69.1; 530/387.1; 424/218.1; 536/23.72			
Applicant THE GOVERNMENT OF THE UNITED STATES OF AMERICA			
<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>3</u> sheets, including this cover sheet.</p> <p><input type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of <u>0</u> sheets.</p> <p>3. This report contains indications relating to the following items:</p> <p>I <input checked="" type="checkbox"/> Basis of the report</p> <p>II <input type="checkbox"/> Priority</p> <p>III <input type="checkbox"/> Non-establishment of report with regard to novelty, inventive step and industrial applicability</p> <p>IV <input type="checkbox"/> Lack of unity of invention</p> <p>V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p>VI <input type="checkbox"/> Certain documents cited</p> <p>VII <input type="checkbox"/> Certain defects in the international application</p> <p>VIII <input type="checkbox"/> Certain observations on the international application</p>			
Date of submission of the demand 01 October 2002 (01.10.2002)		Date of completion of this report 06 March 2003 (06.03.2003)	
Name and mailing address of the IPEA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. (703)305-3230		Authorized officer James C. Housel Telephone No. (703) 308-1111	

Form PCT/IPEA/409 (cover sheet)(July 1998)

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## I. Basis of the report

## 1. With regard to the elements of the international application:\*

- ☒ the international application as originally filed.
- ☒ the description:  
pages 1-95 as originally filed  
pages NONE filed with the demand  
pages NONE filed with the letter of \_\_\_\_\_.
- ☒ the claims:  
pages 96-100 as originally filed  
pages NONE as amended (together with any statement) under Article 19  
pages NONE filed with the demand  
pages NONE filed with the letter of \_\_\_\_\_.
- ☒ the drawings:  
pages 1-8 as originally filed  
pages NONE filed with the demand  
pages NONE filed with the letter of \_\_\_\_\_.
- ☒ the sequence listing part of the description:  
pages 1-63 as originally filed  
pages NONE filed with the demand  
pages NONE filed with the letter of \_\_\_\_\_.

## 2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language \_\_\_\_\_ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

## 3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☒ contained in the international application in printed form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages NONE
- ☐ the claims, Nos. NONE
- ☐ the drawings, sheets/~~fig~~ NONE

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\*

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

\*\* Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.  
PCT/US02/10764**V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1. STATEMENT**

Novelty (N)	Claims <u>1-43</u>	YES
	Claims <u>NONE</u>	NO
Inventive Step (IS)	Claims <u>1-43</u>	YES
	Claims <u>NONE</u>	NO
Industrial Applicability (IA)	Claims <u>1-43</u>	YES
	Claims <u>NONE</u>	NO

**2. CITATIONS AND EXPLANATIONS**

Claims 1-43 meet the criteria set out in PCT Article 33(2)-(3), because the prior art does not teach or fairly suggest the claimed nucleic acids encoding a transcriptional unit encoding a signal sequence from a first flavivirus structural protein and an immunogenic portion from a second, different flavivirus structural protein. The prior art also fails to teach or suggest the various methods of use employing said transcriptional unit and the immunogens encoded thereby. While the prior art provides recombinant flavivirus chimeras, it does not describe or suggest the claimed flavivirus structural chimeras. Moreover, the teachings of the prior art fail to provide highly immunogenic recombinant proteins suitable for use in diagnostic and immunological assays.

NEW CITATIONS

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